

LINKING ENTREPRENEURS' PERCEPTIONS OF THEIR ENTREPRENEURIAL COMPETENCE TO ENTREPRENEURIAL PERFORMANCE: PROPOSITION OF A CONCEPTUAL FRAMEWORK

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Abstract

The failure of new ventures in their early stages of development is a common occurrence (Hackett and Dilts, 2004; Watson et al., 1998; Zacharakis et al., 1999). One of the key factors of failure identified in the literature is the lack of experience and skills of nascent entrepreneurs. This often results in the lack of long-term vision and the difficulty or even inability to find a profitable niche for the new company (Festervand and Forrest, 1991; Gaskill et al. 1993; Baldwin et al., 1997; Saint-Jean, 2008). Consequently, the capacity of entrepreneurs to acquire new knowledge and skills during the start-up process is as critical as to new venture success (Gartner et al., 1998).

Given that the importance of *entrepreneurial competence* (EC) and *entrepreneurial competence development* are widely acknowledged as being key to new venture success, it is surprising to see that very little research has investigated this issue in the context of new venture support and/or incubation programmes.

In this context, our paper aims to explain, by proposing a conceptual model, the role played by new business support and/or incubation programmes in the improvement of entrepreneurs' perceptions of their entrepreneurial competence and how this affects the performance of entrepreneurial activities. Several propositions are then generated and discussed that are designed to explore the relationships between the main variables of our model.

Key Words: Perception – Entrepreneurial competence (EC) – New venture support structures – new venture support programmes – Business incubation programmes – Entrepreneurial self-efficacy (ESE) – Self-awareness of entrepreneurial competence (SAEC) - Beliefs about the improbability of entrepreneurial competence (BAIEC).

Introduction

It is generally acknowledged that the failure of new ventures during their start-up process is a common occurrence (Hackett and Dilts, 2004a; Watson et al., 1998; Zacharakis et al., 1999). In April 2010, according to the French *Observatoire des Entreprises*, 30.7% of failing businesses had less than three years of existence. The disappointingly high failure rate of new business start-ups has seen the rise of many attempts to answer the question “*why do some new firms succeed and others fail?*” (Cooper, 1993). One of the key factors of failure is nascent entrepreneurs’ lack of experience and skills. This often results in the lack of long-term vision and the difficulty or even inability to find a profitable niche for the new company (Festervand and Forrest, 1991; Gaskill et al. 1993). Gartner et al. (1998) support this point of view and see the aptitude of entrepreneurs to acquire new knowledge and skills during the start-up process as critical to new venture success. Thus, “*if the purpose is to increase the probabilities of start-up survival, these findings imply that appropriate support in terms of learning and entrepreneurial skills development is proving to be essential*” (Saint-Jean 2008).

Parallel to these findings, a large number of authors underline the positive impact of new business incubating and support arrangements during the process of new venture creation and their predominance as tools for promoting and developing entrepreneurial skills in entrepreneurs. This global trend is confirmed by several recent studies. Indeed, figures derived from the French innovation agency’s statistics (OSEO, 2006), show that the survival rate of incubated new businesses, in particular those which received support during the start-up phase, is significantly higher than that of non-supported businesses. With the main objective to facilitate the development of conditions required to ensure successful business operations (Lumpkin and Ireland, 1988), these new business support structures are seen (Smilor and Gill, 1986; McAdam and Marlow, 2007; Lalkaka, 2002; Rice and Matthews, 1995) as places devoted to the development of potential entrepreneurial talent within a community. They provide entrepreneurs with services and guidance that complement their natural talents and enable them to expand their potential (Smilor, 1985), especially at a time when the new business is particularly vulnerable to market uncertainties.

The definition of new venture support proposed by Cuzin and Fayolle (2004) corroborates this point of view. According to these authors new venture support is the “*practice of helping entrepreneurs in their new venture creation processes, by establishing a long-term relationship between the business founder and an individual who is external to the new*

venture creation process. Through the relationship, the entrepreneur will engage in valuable learning experiences, access resources and develop useful skills to see his project come to fruition". This definition clearly highlights the essential role played by incubators and start-up support structures in the development of pre-start-up entrepreneurial skills.

Back in 1996 Deakins (pp. 21-22) stated *"We do not understand how entrepreneurs learn, yet it is accepted that there is a learning experience from merely establishing a new enterprise. The learning process that is involved in business and enterprise development is poorly understood, yet programmes have been devised and interventions are made in business development...There is now a need for re-focusing research away from the emphasis on picking successful entrepreneurs or picking winners, to identifying key issues in the learning and developmental processes of entrepreneurship"*. The question still remains to this day. Indeed, Loué et al, (2008) reported that research on entrepreneurial competence is still in its "immature" stage, as none of the works produced so far have proved operational, by providing a formal and stabilized tool for the positioning, assessment and self-assessment of entrepreneurial competencies.

Faced with this lack of both practical and theoretical information, understanding this issue is becoming an important challenge for the business support institutions themselves, and the economic actors involved. Indeed, as Bruyat stated in 1993, *"Without a better understanding of the phenomenon of entrepreneurship, new venture support mechanisms can never make progress and risk being thrown into doubt by economic development actors"*.

In this context, the contribution of our research is twofold. On a theoretical level, we seek to shed light on the development process of entrepreneurial competencies within business incubating structures and how this contributes to the performance of entrepreneurial activities. More specifically, our focus is on the impact of new venture support activities on the evolution of entrepreneurs' perceptions of their entrepreneurial competencies, which, according to our study, are believed to be key factors of their entrepreneurial performance.

On a practical level, studying the question of entrepreneurial competence in the context of new venture support structures leads to addressing the type of issues faced by new venture support professionals. The purpose of our study is to provide insights that could ultimately lead to improving business support practices by integrating the entrepreneurial competence dimension. Thus we propose a conceptual framework of entrepreneurial competence

development, relating new venture support activities during the post-start-up phase with entrepreneurs' perceptions of their ability to develop entrepreneurial skills and their impact on the performance of entrepreneurial activities.

In the first part of this paper, we provide an overview of the theoretical framework and key concepts used in this research. In the second part, we present our conceptual model and analyze the relationships between the different variables. Finally, we discuss our research propositions based on the model.

1. Business support, entrepreneurial competencies and new venture performance

Starting a business is a complex process regardless of the type of project or the entrepreneur's level of ambition and motivation. Starting with the detection of a good business idea or opportunity through to finding and acquiring the necessary resources and competencies in order to turn this idea or opportunity into a sustainable and profitable business, the entrepreneur is permanently faced with challenges and risks, and cannot always assume this responsibility alone. Based on this observation, business support programs have been developed to help improve new venture performance and long-term survival of novice businesses.

1.1. THE EVOLVING ROLE OF BUSINESS SUPPORT AND INCUBATION PROGRAMMES

Historically, business incubation and support activities are mainly focused on providing financial support, advice and training during the pre-start-up phase, following a mechanistic and sequential approach of the new business start-up process. In recent years the role played by these support and incubation structures has undergone a significant evolution. Their services have expanded to include coaching, integration into entrepreneurial networks, establishing contacts with business managers, assisting entrepreneurs during the post-start-up phase, company-hosting services, personalized training, etc.. Depending on the type of new business concerned, the nature and scope of the assistance provided can vary greatly, implying that business support activities can take many forms.

Throughout the entrepreneurial process, entrepreneurs often have an incomplete perception of their environment, their capacities and resources, aspirations and/or long-term objectives

(Bruyat, 2001). The role of the persons in charge of supporting new businesses is to help entrepreneurs clarify their representations and develop their skills and capacities by proposing favourable conditions to learning. Understanding how entrepreneurs acquire skills and therefore what kind of support facilitates such learning is a key issue for professionals who assist company founders.

However, despite the recognition that business incubation programs improve entrepreneurs' performance and the efficiency of the activities they carry out, these business support arrangements have received little attention among researchers in the field of entrepreneurship.

The few existing studies tend to focus on the analysis of the technical tools and activities proposed by the business incubator (such as providing physical resources, developing a business plan, helping with administrative procedures and other services). Relatively few studies consider the impact of the psychological changes incurred during the process, such as the evolution of entrepreneurs' perceptions of their entrepreneurial competence¹ on their entrepreneurial performance (Murphy and Young, 1996).

1.2. ENTREPRENEURIAL COMPETENCIES

The concept of entrepreneurial competence refers to individual performance (Draganidis and Mentzas, 2006; Hoffmann, 1999). The concept was originally developed by educational researchers to describe the behaviour of students and teachers (Bowden and Masters, 1993). This concept was then integrated into management literature through the works of Boyatzis (1982) on entrepreneurial management. Parry (1998) argues that the birth and the rapid growth of the "competence-based approach" are rooted in the need to identify and define the characteristics of successful managers. This approach is based on the assumption that managers can be trained and progress along these lines (Burgoyne, 1993; Parry, 1998).

Although for some authors "entrepreneurial competencies" refer primarily to managerial competencies or skills (Nakhata, 2007), the fact that entrepreneurial activities are not merely confined to the management of the business clearly requires considering entrepreneurial competencies as extending beyond managerial competencies (Johnson and Winterton, 1999;

¹ In reference to Thomas Lans's work (2009). The degree of perceived entrepreneurial competence is explained and measured using a number of psychological variables such as the "self-awareness of entrepreneurial competence" and the "beliefs about the improvability of entrepreneurial competence".

Lau and Shaffer, 1999; Chandler and Hanks, 1994). Bird (1995) defines entrepreneurial competencies as *“underlying characteristics such as generic and specific knowledge, motives, traits, self-images, social roles, and skills which result in venture birth, survival, and/or growth”*.

Throughout this work, we refer to the definition proposed by Man et al (2002) in which *“entrepreneurial competencies are considered a higher-level characteristic encompassing personality traits, skills and knowledge, and therefore can be seen as the total ability of the entrepreneur to perform a job role successfully”*. This definition highlights the relationship of entrepreneurial competence with individual-level work outcomes and new venture performance (Baum, 1995; Chandler and Hanks, 1994, Chandler and Jansen, 1992; McClelland, 1987). There seems to be a general consensus on the fact that the entrepreneurial competencies are carried by individuals who begin and transform organizations (Mitchelmore and Rowley, 2010).

In response to particular issues outlined by Cooper and Gascon (1992) and Murphy et al. (1996) about the relationships between SME performance and its antecedents, Man et al. (2002) developed and validated empirically a conceptual model of entrepreneurial competencies to link the individual characteristics of SMEs' owner-managers and their firms' performance. In this work, the authors explicitly correlate SMEs' entrepreneurial behaviours to the founders' individual competencies. Their model puts forward six major areas of entrepreneurial competencies, namely the opportunity, relationship, conceptual, organizing, strategic, and commitment competencies (Man et al, 2002). The following table provides the definitions of the six identified areas of entrepreneurial competencies with some of their underlying dimensions and behaviours.

Table 1: Areas of entrepreneurial competencies, definitions, examples of behaviours and underlying dimensions

Competence area	Behavioural focus	Examples of behaviours	Underlying dimensions
Opportunity competencies	Competencies related to recognizing and developing market opportunities through various means	Identifying, assessing and seeking business opportunities	Pro-active searching Alertness
Relationship competencies	Competencies related to person-to-person or individual-to-group-based interactions, e.g., building a context of cooperation and trust, using contacts and connections, persuasive ability, communication and interpersonal skills	Building relationships and networks; communicating; negotiating; managing conflict effectively	Teamwork Social perception Negotiating
Conceptual competencies	Competencies related to different conceptual abilities, which are reflected in the behaviours of the entrepreneur, e.g., decision skills, absorbing and understanding complex information, and risk-taking, and innovativeness	Developing quick and intuitive thinking for decision-making; viewing situations from various angles; innovating; assessing risks	Diagnosing problems Analysis Judgment
Organizing competencies	Competencies related to the organization of different internal and external human, physical, financial and technological resources, including team-building, leadership, training, and control	Planning, organizing, leading, motivating, delegating and controlling	Personnel management Planning and organization
Strategic competencies	Competencies related to setting, evaluating and implementing the strategies of the firm	Setting challenging yet achievable business goals and vision; devising strategies to achieve these goals; assessing the effectiveness of strategies and taking corrective action when necessary; making strategic changes and using business tactics	Result orientation Strategic orientation Vision
Commitment competencies	Competencies that drive the entrepreneur to move ahead with the business	Sustaining effort; committing to long-term goals; committing to personal goals and starting over in case of failure	Learning orientation Self management

1.3. THE PERCEPTION OF ENTREPRENEURIAL COMPETENCIES

Perception is the process whereby individuals organize and interpret their sensory impressions in order to give meaning to their environment. However, even though it is not always the case, what we perceive may be significantly different from the objective reality (Robbins and Judge, 2009). In different situations, individuals act according to several factors, in particular,

their beliefs, motives or intentions. Therefore, individuals' perceptions will have an impact on both the ways of thinking and acting (Robbins and Judge, 2009).

Entrepreneurs' self-perceptions of their entrepreneurial competencies play an important role in the success of the new venture creation process (Mitchell et al. 2002; Edelman and Yli-Renko, 2010; Baron, 1998; Allinson, Chell and Hayes, 2000). Mitchell et al. define entrepreneurial cognitions as (2002), "*the knowledge structures that people use to make assessments, judgments, or decisions involving opportunity evaluation, venture creation, and growth*".

Chandler and Jansen' results (1992) showed that the most successful founders who achieved higher levels of growth and earnings, perceive themselves as skilled in the entrepreneurial, managerial, and technical-functional roles. When this is not the case, business founders must be prepared to engage in all kinds of training and learning activities, so they can adapt to their new roles and acquire the necessary skills.

In other words, entrepreneurs who perceive themselves as lacking the necessary competencies, and yet fail to engage in acquiring the missing skills will leave the nascent organization vulnerable to competition, market evolutions, and new technological and societal demands (Lans, 2009).

In line with this author's approach, we examine the individual factors and characteristics that influence the entrepreneurs' self-perceptions of their entrepreneurial competencies (self-awareness of entrepreneurial competencies) and their beliefs about the possibility of developing and improving these competencies. These two dimensions serve as the basis for our conceptual framework, which is presented in the second part of this paper.

1.4. THE PERFORMANCE OF ENTREPRENEURIAL ACTIVITIES

Measuring new venture performance had never been an easy task for researchers, but a significant challenge to overcome (Chandler and Hanks, 1993). Indeed, there is some agreement that different methods should be used for measuring business performance depending on the industry concerned (Hofer 1983; Venkatraman and Ramanujam 1986). Some researchers have focused on determining the most relevant performance criteria for large founded firms (Dalton et al. 1980; Kanter and Brinkerhoff 1981); however, few have endeavoured to identify performance measurement criteria applicable to small emergent firms

(Chandler & Hanks, 1993; Brush 1990; Brush and Vanderwerf, 1992; Chandler and Hanks, 1991; Robinson et al., 1986).

In the framework of this research, we are not concerned so much with the performance of the new venture as with the entrepreneur's performance in each task/activity required by the new venture creation process. Therefore we will first identify these various tasks before examining how their performance is measured.

There is a significant body of research addressing the measurement of entrepreneurial self-efficacy (ESE) in relation to entrepreneurial activities. Indeed, McGee et al. (2009) suggest that salient literature on ESE is devoted to identify tasks associated with core entrepreneurial activities or skills, such as opportunity recognition, risk and uncertainty management, and innovation. In most of these works, the objective is to assess the relationship between perceived self-efficacy and the performance of entrepreneurial tasks, activities or competencies. Chen et al (1998) proposed a list of 22 items to identify these entrepreneurial tasks, activities and/or competencies, which were then grouped into five dimensions: (1) marketing, (2) innovation, (3) management, (4) risk taking, and (5) financial control.

Based on the works of Stevenson et al. (1985), Mueller and Goic (2003) developed a model of entrepreneurial activities based on the four phases of the new venture creation process: searching (business idea, opportunity, etc.), planning (business plan), marshaling (intellectual, human, financial resources, etc.) and implementing.

In order to analyze and conceptualize entrepreneurs' motivations in relation to the entrepreneurial roles required by specific task requirements, Miner (1990) identified five broad categories of entrepreneurial roles: self-achievement (the desire to achieve through one's own efforts and to attribute success to personal causation), risk avoidance (the desire to avoid risk and leave little to chance), feedback of results (the desire for feedback), personal innovation (the desire to introduce innovative solutions), and planning for the future (desire to think about the future and anticipate future possibilities).

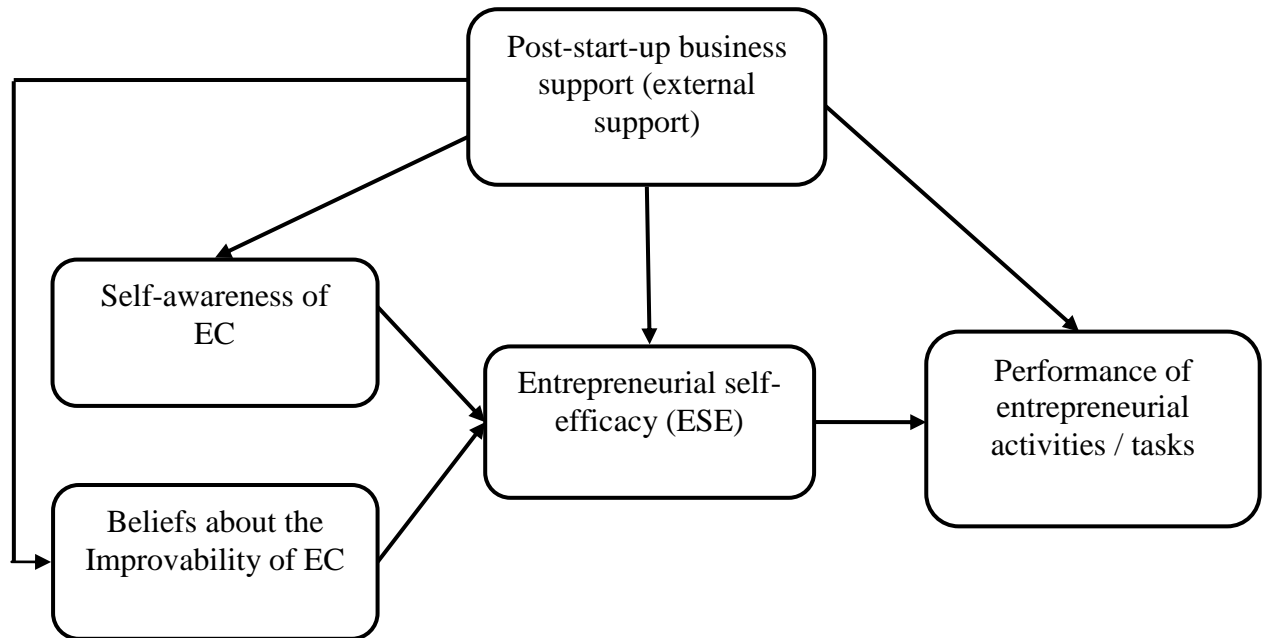
With the primary purpose of predicting new venture success and survival, Gartner, Starr and Bhat (1998) measured the impact of 85 items on new venture performance. These items cover four broad categories of factors: individual characteristics, entrepreneurial behaviours, strategy and environment. Individual characteristics are particularly focused on the

experiences of the entrepreneurs involved in the development of the new venture process. This experience takes into account the knowledge and ability acquired by an individual in particular circumstances such as a job, organization or industry. Entrepreneurial behaviours are the primary determinant of venture survival: everything entrepreneurs do during the venture creation process has an impact on the likelihood of new venture survival (Carter, Gartner, and Reynolds 1996; Gartner 1988; Gartner, Bird, and Star 1992). In this work, we use the classification of entrepreneurial activities developed by Gartner, Starr and Bhat (1998) namely:

- i. Finding and Refining the Opportunity: covering 9 different activities, for example: defining the purpose of the business, planning, analyzing competitors;
- ii. Acquiring Resources and Help: covering 15 different activities, for example finding investors, getting advice from lawyers, getting a loan, acquiring technical expertise;
- iii. Operating the Business: covering 5 different activities, for example dealing with distributors, managing the day to day operations of the business;
- iv. Identifying and Selling to Customers: covering 5 different activities, for example, identifying specific customers to sell to, selling to customers, managing sales channels;
- v. “Outside of the Business” Issues: covering 4 different activities, for example dealing with family problems, spouse, and friends.

2. A Conceptual Framework for Entrepreneurial Competencies Development

Figure1: A theoretical model illustrating the impact of entrepreneurs' self-perceptions of their entrepreneurial competencies on the performance of entrepreneurial activities



Based on the literature review presented in the previous section, and drawing on Lans' work (2009), and the entrepreneurial competencies model developed by Man et al. (2002), we present our conceptual framework (Figure 1), before developing our research propositions.

The variables selected in this framework stem from our conviction that the perceptions of entrepreneurs towards their entrepreneurial competencies and abilities (expressed here in terms of self-awareness and beliefs about the improvability of EC) and their entrepreneurial behaviours determine their entrepreneurial effectiveness and therefore the chances of new business survival (Gartner, Starr and Bhat, 1998). Based on the premise that business support arrangements (a post-start-up support structure in the case of our study) contribute to strengthening and improving these perceptions, we believe they can orient and influence (through a variety of tools and techniques that will be highlighted in this research) entrepreneurs' behaviours towards achieving entrepreneurial self-efficacy.

2.1. SELF-AWARENESS OF ENTREPRENEURIAL COMPETENCIES (EC)

Some researchers, notably Church (1997), have investigated the relationship between the managerial self-awareness and individuals' organizational performance. The results showed

that, by paying attention to the issue of managerial self awareness, individuals can enhance their effectiveness in the management and career development activities. McCarthy and Garavan (1999) have studied the relationship between career development, self-awareness, and other related concepts such as self-esteem, self-efficacy and self-actualisation. Chen's work (1998) on career development provides us a useful framework for understanding the role played by self-awareness in the managerial and career development process.

According to Amundson (1995)², two key variables moderate an individual's career decisions, the level of self-awareness and the individual's level of self-efficacy. He argues that these two components are important because individuals with *“high levels of self-awareness and self-efficacy are in a better position to respond proactively to external circumstances and exert more control over long term effects”*.

If self-awareness is an essential component in individual managerial competence development (McCarthy and Garavan, 1999), it is also a key factor in the development of entrepreneurial competencies. Indeed, entrepreneurship and small business literature indirectly suggest that lack of self-awareness can impede small business development (Lans et al., 2010). Seal et al. (2006) consider that an individual's competencies result from a set of behaviours which are well used at the right time in a given situation to further an underlying goal or purpose. In line with the latter point, Hambrick and Crozier (1985), through their observation of thirty rapid-growth firms, conclude that extremely fast-growing firms led by executives who are not aware of their limitations, and therefore do not change their behaviour or delegate part of their tasks to someone else, often end up with low performance or even in bankruptcy.

Analysis of the literature shows that the concept of self-awareness is a broad concept focusing on the image that an individual has of him/herself and whether or not that image is accurate in comparison with how others perceive that individual (McCarthy and Garavan, 1999). According to Atwater and Yammarino (1992), *“self-awareness stems from the ability to assess others' evaluations of the self, and incorporate those assessments into one's self-evaluation”*.

² Idem.

In their study, Fletcher and Bailey (2003) define self awareness as “*the extent to which the self and other-raters agree on the level of competence the focal individual (or target) attains*”, or, “*the extent to which an individual sees his/herself as others see him or her*”.

As of yet there is no consensus among researchers in this field regarding how to best represent self-awareness conceptually or statistically (Baldry and Fletcher, 2000; Fletcher and Baldry, 2000). Indeed, Wohlers and London (1989) contend that self-awareness is one of the most difficult skills to rate.

Predictors of human behaviour and entrepreneurial performance are clearly correlated with individuals’ self-awareness and the beliefs guiding their intentions (Fishbein and Ajzen, 1975). Human behaviours are therefore influenced by the perceptions of the possibilities to develop and improve specific competencies.

Research by Church and Waclawski (1999) on managerial self-awareness has shown that the more an individual is aware of his or her own behaviours and the impact they have on others, the more effective he or she should be at influencing others, and consequently the greater his or her level of effectiveness should be. Maurer et al.’s findings (2003a) suggest that some individual variables (including self-awareness of strengths and weaknesses) are positively correlated with self-efficacy.

Similarly, Atwater and Yammarino (1992) showed a positive relationship between self-awareness, self-efficacy and performance, which leads us to our first proposition:

P1: In the context of new business support and/or incubation programmes, entrepreneurs’ self-awareness of their EC has a positive impact on their entrepreneurial self-efficacy (ESE).

2.2. BELIEFS ABOUT THE IMPROVABILITY OF ENTREPRENEURIAL COMPETENCIES

Heterogeneous beliefs and expectations are central to strategy and entrepreneurship literature (Felin and Zenger, 2009). Indeed, entrepreneurship itself is commonly defined as the discovery and exploitation of opportunities based on an entrepreneur’s judgment, beliefs, and expectations (Shane, 2003, cited by Felin and Zenger, 2009). However, the fundamental beliefs regarding the malleability of personal attributes have remained untested to this day (Lippstreu, 2003). According to Maurer et al. (2003b), several studies have set out to measure the importance of various competencies and attributes on professionals’ career development,

but few have investigated whether the individuals concerned believed in the possibility of improving these skills. According to Maurer and Lippstreu, (2008), people's beliefs concerning whether or not they can improve their personal attributes can have different implications regarding the kind of attitudes and behaviours they exhibit. Boyd and Vozikis (1994) argue that individuals with strong beliefs regarding their abilities will be more determined and persevered in their efforts and will try harder when being confronted by challenges. Maurer and Tarulli (1996) emphasize the importance of social support in improving "development capability beliefs" in the workplace: managers may be led to believe in the improbability of their competencies following feedback from their peers, subordinates and/or colleagues.

Based on the assumption that knowledge, skills, abilities and other individual characteristics (KSAOs) are improvable, Maurer et al. (2002, 2003a, 2003b), and Maurer and Lippstreu (2008), have produced several works examining the link between "implicit theories" and the malleability of personal attributes. Elliott and Dweck (1988) and Dweck and Leggett (1988) have also investigated the role of "implicit theories" and on individuals' perceptions of their own abilities. According to the authors, individuals' implicit theories of intelligence orient them toward particular goals and motivational patterns (Elliott and Dweck, 1988). In achievement situations, individuals typically subscribe to conceptions of their ability as either a fixed entity or as an acquirable skill independently of their actual ability (Elliott and Dweck, 1988). In the first case, conceiving of one's ability as a fixed or limited entity leads individuals to the performance goal of confirming this perception and obtaining positive judgement of their competence; whereas in the second case, believing that abilities are competencies that can be acquired and/or improved leads the individual towards learning and increasing competence (Martocchio, 1994).

From an entrepreneurial perspective, it seems important to consider individuals' beliefs of the improbability of their entrepreneurial skills as key factors of entrepreneurial performance, a path that has been left relatively untested by empirical research in entrepreneurship, particularly in the context of new venture support programmes.

If we assume that individuals' perceptions and beliefs about the improbability of their skills and personal abilities are correlated to their motivation when facing new situations and performing job tasks (Dweck and Leggett, 1988; Maurer 2001, Maurer et al. 2003a), it is important to examine these beliefs as part of a larger set of personal beliefs including belief in

one's self-efficacy (Maurer et al., 2003b). Therefore, drawing on the literature we will explore in more detail the concept of self-efficacy and more particularly, that of entrepreneurial self-efficacy (ESE).

Several studies in the entrepreneurship literature have investigated the relationship between perceived self-efficacy and entrepreneurial career preferences. Maurer et al. (2003b) showed that people with higher levels of perceived entrepreneurial self-efficacy also believe more strongly in their new venture creation ideas. They also believe, more than others, in their entrepreneurial competence (Maurer et al., 2003b).

According to Wood and Bandura (1989), self-efficacy concerns individuals' beliefs in their capabilities to mobilize the motivation, cognitive resources, and courses of action needed to face given situations, which leads us to our second proposition:

***P2:** Strong beliefs about the improvability of EC in entrepreneurs who benefit from new business support and/or incubation programmes have a positive impact on their entrepreneurial self-efficacy.*

2.3. ENTREPRENEURIAL SELF-EFFICACY

As was already defined by Wood and Bandura (1989) above, self-efficacy is an individual cognitive assessment of one's capabilities to mobilize the motivation, cognitive resources, and courses of action needed to exercise control over situations faced during life. Self-efficacy affects a person's beliefs regarding whether or not certain goals may be attained (Boyd and Vozikis, 1994). Bandura (2000) goes even further and contends that self-efficacy beliefs affect individual motivations through their impacts on the goals and expectations themselves.

In the entrepreneurship literature examining self-efficacy as a key antecedent to the formation of entrepreneurial intentions, the construct is referred to as "entrepreneurial self-efficacy" (ESE) (Boyd and Vozikis, 1994; Chen et al., 1998, Krueger and Brazeal, 1994). According to Lucas and Cooper (2004), the founders' confidence and self-beliefs about their capacities to perform successfully the many activities that are required of them are paramount in the decision to start a new venture. Indeed, given the complex tasks required of entrepreneurs (identifying opportunities, gathering the necessary resources, launching and growing the business), the perception of their self-efficacy or beliefs in their abilities to succeed seem to be especially important. As DeNoble, Jung, and Ehrlich (1999) note, often the entrepreneurial

role is not clearly defined, and many uncertainties may exist regarding the success of one's venture. These uncertainties, they claim, can become barriers to entrepreneurs, especially in the start-up phase. They add that uncertainty surrounding the likelihood of success would seem to be inextricably linked to the beliefs that individuals have of their ability to succeed i.e. their self-efficacy (Lucas and Cooper, 2004).

In research on ESE in the context of social cognitive theory (Bandura, 1986), self-efficacy beliefs are part of a wider set of mechanisms of self-directedness with strong impact on human thought, feeling, motivation, and action. People's beliefs in their efficacy influence the choices they make, their aspirations, how much effort they mobilize in a given endeavour and how long they persevere in the face of difficulties and setbacks (Bandura, 1991).

The theory of personal self-efficacy is highly appropriate for the study of entrepreneurship, as the construct is task-specific and can therefore vary according to the task and/or activity considered. This implies that entrepreneurial self-efficacy should be assessed with regard to specific tasks and behaviours (Barbosa et al., 2007).

Based on works by DeNoble et al. (1999), Chen et al. (1998), and Barbosa et al. (2007) four task-specific types of entrepreneurial self-efficacy can be identified: opportunity-identification self-efficacy, relationship self-efficacy, managerial self-efficacy and tolerance self-efficacy. Generally self-efficacy incorporates internal factors (personality-related factors) and external factors (environment-related factors) (Bird, 1988; Boyd and Vozikis, 1994). Thus, self-efficacy does not relate to a global disposition that can be measured using a global test, but rather a multifaceted phenomenon (Bandura, 1997). A high level of self-efficacy in one activity area does not necessarily imply a high level of self-efficacy in other areas (DiClemente, 1986). In order to have an explanatory and predictive power, the measures of self-efficacy must be tailored to the specific tasks being assessed and represent gradations of task requirements within those areas. This requires a clear definition of the specific field of activity, and a conceptual analysis of its various aspects and of the capabilities that the individual may need as well as the range of situations to which they may apply (Bandura, 1997).

Entrepreneurial self-efficacy is a source of entrepreneurial performance. Indeed, Chen et al. (1998) show that self-efficacy and performance form a cycle of mutual reinforcement: self-efficacy affects performance through interest, motivation, and perseverance, while

performance provides information feedback, on the basis of which self-efficacy is further evaluated and modified.

Several studies have attempted to examine the effects of self-efficacy (Bandura, 1977, 1986; Wood and Bandura, 1989). They suggest that self-efficacy is the most effective predictor of performance (Chen et al., 1998). Entrepreneurial self-efficacy is the extent to which individuals perceive themselves as capable of successfully performing the different roles and tasks of an entrepreneur (Chen et al., 1998; DeNoble et al., 1999). Without a minimum level of self-efficacy, it is unlikely that potential entrepreneurs are sufficiently motivated to engage in the new venture creation process (Boyd and Vozikis, 1994; Krueger and Brazeal, 1994; Markman, Balkin and Baron, 2002; Zaho, Seibert, and Hills, 2005).

We may also cite research by Baum and Locke (2004), which examines how the relationship between managerial skills and business performance is influenced by other variables such as the perceived self-efficacy of the owner-managers.

Evidence from various empirical research findings has demonstrated the positive relationship between entrepreneurial self-efficacy and performance. Indeed, the empirical research on self-efficacy led by Prussia, Anderson, and Manz, 1998, has established a strong and lasting relationship between self-efficacy and subsequent results. Similarly, findings from Barling and Beattie (1983), Lee and Gillen (1989) and Mathieu, Martineau and Tannenbaum (1993) show that self-efficacy increases task performance. As shown above, the positive impact of self-efficacy on entrepreneurial performance has been relatively well demonstrated by prior empirical research. Accordingly, we make the following proposition:

***P3:** Enhanced entrepreneurial self-efficacy in the context of business support or incubation activities contributes to the performance of entrepreneurial activities.*

2.4. NEW VENTURE SUPPORT AND COMPETENCE DEVELOPMENT

As mentioned in the introduction of this paper, many authors recognize the positive impact of new business support structures. Perceived as places for developing entrepreneurial talent, business support structures provide entrepreneurs with the necessary services for the development of their new ventures as well as favourable conditions to bring their projects to fruition. Business support therefore appears to be a real tool for promoting and developing entrepreneurial skills. As suggested by Bird (1995), these include a number of generic and

specific attributes such as one's motives, personality traits, self-image, social role(s) and skills, which all contribute to new venture birth, survival, and/or growth.

Entrepreneurs' perceptions of their entrepreneurial competencies play an important role in the success of entrepreneurial processes (Mitchell et al. 2002; Baron, 1998; Allinson, Chell and Hayes, 2000). According to Lans (2009), two key factors influence entrepreneurs' perceptions and therefore the decision to develop entrepreneurial competencies or not: namely self-awareness of entrepreneurial competencies and the current belief in the possibility of improving them. That is to say, if owner-managers (or entrepreneurs) are not aware of their situation and/or not motivated to mobilize activities aimed developing their competence, the small firm will hardly be able to face changes in the market, competition, technology and societal demands (Lans, 2009).

Based on the premise that business support and/or incubation activities play an essential role in the development of entrepreneurial competencies in entrepreneurs, and that, in order to succeed, entrepreneurs must be aware of their competencies (or lack thereof) and of their ability to improve them, we make the assumption that business support structures can help entrepreneurs improve the perception of their entrepreneurial competencies and achieve the desired performance. This leads us to the following research propositions:

P4: New business support or incubation activities have a positive impact on entrepreneurs' self-awareness of their EC.

P5: New business support or incubation activities have a positive impact on entrepreneurs' beliefs about the improvability of their EC.

P6: New business support or incubation activities have a positive impact on improving entrepreneurial self-efficacy in entrepreneurs.

P7: New business support or incubation activities have a positive impact on the performance of entrepreneurial activities.

CONCLUSION

Our research belongs to the field of entrepreneurial psychology. It aims at proposing a theoretical framework linking three main variables, namely: new business venture support,

perceptions of the entrepreneurial competencies of novice entrepreneurs and finally, the performance of entrepreneurial activities.

Lans (2009) argues that human resource development (HRD) practices aimed at enhancing and further developing the entrepreneurial competencies of SME owner-managers remain complex and that research in this setting is quite rare, even more so concerning emerging entrepreneurs. Our research contributes to this issue by investigating three key aspects or factors that could influence and determine entrepreneurs' decisions to develop their entrepreneurial competencies. We refer here to entrepreneurs' self-awareness of their current skill-set, their beliefs about the improvability of these skills and their perceived entrepreneurial self-efficacy.

Our next step will be to strengthen our theoretical position and to test our conceptual model in the context of "*Réseau Entreprendre*[®]". For this purpose, we will opt for a quantitative approach and a longitudinal analysis to better understand and assess the varying perceptions of the supported entrepreneurs resulting from their interactions with an external mentor.

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